

MSE-218SP

self-powered touring subwoofer system



FEATURES AND BENEFITS:

- incredible power density
- onboard Class D amplifier and mixed-mode 64-bit 96kHz DSP processing
- Remote monitoring and control via Ethernet
- Module accepts analog & AES/EBU digital inputs
- exceptional headroom and reliability
- inherent scalability for use in a wide variety of applications

The MSE-218SP is a self-powered subwoofer system, designed to fulfil the most demanding applications where scalability and single-enclosure use are as important as sonic performance.

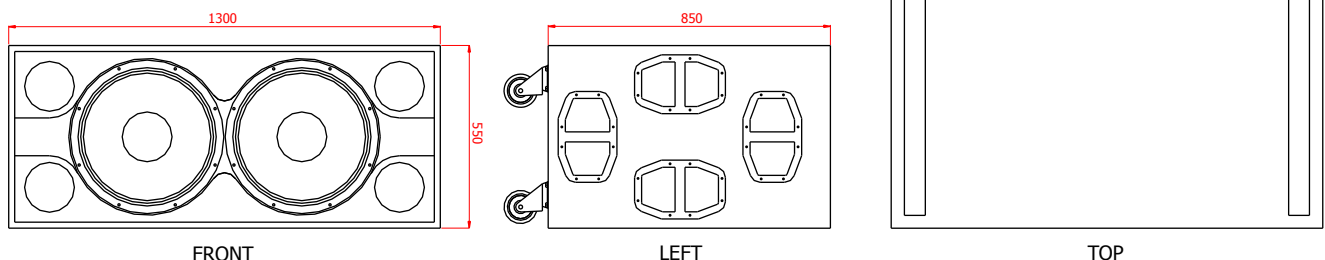
The MSE-218SP has been developed to answer a call from customers who don't always have the physical space available to use MSE-118 Quake subwoofers in significant numbers, yet still require impressive SPL and frequency response. MSE-218SP subwoofers are inherently scalable – they can be used as single units, or in large numbers for filling arena or stadium shows. The utmost in drive unit technology combined with a state-of-the-art amplification and control electronics package make the MSE-218SP a firm contender for any professional subwoofer application.

The substantial enclosure houses a pair of reflex-loaded 4.5" voice coil, 18" (457mm) neodymium LF cone drive units. Like all EM Acoustics products, headroom is key. Peak-to-peak linear cone travel is 28mm, meaning large amounts of low frequency information can be produced by a surprisingly small and lightweight subwoofer enclosure.

The amplifier module is a Class D design, utilising a PFC power supply for universal mains voltage operation. The amplifier contains two monobloc modules (one per drive unit), each delivering 2400W RMS to the 4 ohm drive unit - giving the highest power density of any dual 18" subwoofer design available. The onboard DSP provides high/low pass, limiting and protection filters, as well as delay, gain and user adjustable EQ filters. All parameters and program functions can be accessed using the high resolution LCD display on the back of the module. The user can select the input format via this display also - analog, AES/EBU channel 1, AES/EBU channel 2, and AES/EBU mono sum. Remote control and monitoring is provided via the Ethernet port on the module. The MSE-218SP ships from the factory with a variety of factory presets pre-installed, including a dedicated cardioid function to allow users to reduce LF information to the rear of the subwoofers when creating a standard cardioid array of three subwoofers (two facing forwards, one facing backwards). Mains power is supplied via Neutrik PowerCON connectors - both for input and loop output - meaning a number of subwoofers can be daisy-chained from the same power supply.

The robust enclosure is constructed from premium 18mm (3/4") multi-laminate Birch plywood – rebated, screwed & glued together. The enclosure is finished in black textured paint as standard, however RAL colour matching as well as weather protection options are available if required. Due to the extremely high cone travel available, enclosure rigidity was key in the design - the baffle is made in total from five 18mm thicknesses of premium plywood. Runners are provided on the bottom of the enclosure to protect the paint finish when in use, and recesses on the top of the enclosure allow stable stacking of arrays. Eight steel bar handles and tour-grade castors are also fitted as standard. A pair of M20 threaded flange adapters are also provided in the top of the enclosure for mounting fullrange products above for compact systems. Lastly, a tough hex-punched grille protects the drive units from damage, which can be quickly removed for service purposes.

ENGINEERING DRAWING



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TECHNICAL SPECIFICATIONS

ACOUSTICAL

ENCLOSURE TYPE: dual drive unit reflex loaded, self-powered
 FREQUENCY RESPONSE¹: 28Hz – 150Hz +/- 3dB
 DISPERSION²: omnidirectional
 DRIVE UNITS: 2 x 18" (457mm) neodymium LF cone drive unit
 MAXIMUM SPL³: 137dB continuous, 143dB peak
 CROSSOVER: active – various settings available as factory presets

MECHANICAL

DIMENSIONS (HxWxD): 550 (21.7) x 1300 (51.2) x 850 (33.5) mm/(ins)
 NET/SHIPPING WEIGHT: 118 (259.6) / 122 (268.4) kg/(lbs)
 ENCLOSURE: 18mm (3/4") multi-laminate Birch plywood – rebated, screwed & glued.
 Finished in black semi-matt textured paint
 RIGGING/SUSPENSION: 2 x M20 threaded stand adapter for fullrange enclosures
 8 x heavy duty bar handles
 Touring runners on underneath, matching recesses in the enclosure top
 Heavy duty castors on rear
 GRILLE: Hex punched steel

AMPLIFIER PACKAGE

AMPLIFIER TYPE: dual amplifier – each is single channel Class-D
 AMPLIFIER POWER: 2 x 2400W RMS @ 4 ohm load (one module per drive unit)
 DSP SYSTEM: 96kHz sample rate, 120dB dynamic range
 COOLING: 2 x low-speed 5VDC fan on heatsink – temperature controlled, only required under extreme conditions
 CONNECTORS: Female XLR input, male XLR link output (selectable as analog or AES/EBU input)
 Neutrik PowerCon™ input with loop output
 Neutrik Ethercon™ RJ45 socket
 DISPLAY: High resolution backlit LCD display with rotary encoder for user control
 OPERATING VOLTAGE: Automatic selection via PFC power supply:
 100-120V AC & 200-240V AC, 50/60Hz
 NOMINAL CURRENT: 4.8A RMS @ 230V
 9.6A RMS @ 120V
 POWER CONSUMPTION: 822W nominal
 4800W maximum

Notes on measurement conditions:

¹Measured on-axis at 2m in an anechoic environment and referenced to 1m.

²Nominal dispersion, measured in an anechoic environment and averaged over stated bandwidth

³Calculated and verified by subjective listening test of familiar program material.



ENCLOSURE OPTIONS

MSE-218SP enclosures are supplied as standard in black or white. Any RAL colour can be supplied on request (extended lead time and setup charges apply). Weather protection options are also available to give enhanced protection to the loudspeaker when used outdoors for extended periods of time.